

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-12. (Cancelled)

13. (Previously Presented) A semiconductor structure comprising:

a semiconductor substrate;

a first trench extending in a first direction, the first trench having walls;

a second trench extending in a second direction, the second trench having walls;

a first conducting layer positioned over the walls of the first and the second

trenches at selected locations;

a first beam positioned within the first trench, the first beam being rigidly connected at a first portion thereof to the substrate and being movable at a second portion thereof, the second portion being spaced from the walls of the first trench by a selected distance; and

a second beam positioned within the second trench, the second beam being rigidly connected at a first portion thereof to the substrate and being movable at a second portion thereof, the second portion being spaced from the walls of the second trench by a selected distance.

14. (Previously Presented) The semiconductor structure of claim 13 wherein the length of the first beam is different from the length of the second beam.

15. (Previously Presented) The semiconductor structure of claim 13 wherein the width of the first beam is different from the width of the second beam.

16. (Previously Presented) The semiconductor structure of claim 13 wherein the width of the first trench is different from the width of the second trench.

17. (Previously Presented) The semiconductor structure of claim 13 wherein the thickness of the first beam is different from the thickness of the second beam.

18. (Previously Presented) The semiconductor structure of claim 13 wherein the first direction is parallel to the second direction.

19. (Previously Presented) The semiconductor structure of claim 13 wherein the first direction is perpendicular to the second direction.

20. (Previously Presented) The semiconductor structure of claim 13 wherein the first direction and the second direction are in an arrangement so that the first trench and the second trench have a common radius from a common point.

21. (Previously Presented) The semiconductor structure of claim 20 wherein the first beam is perpendicular to a first line extending from the center of a circle and the second beam is perpendicular to a second line extending from the center of the same circle.

22. (Previously Presented) The semiconductor structure of claim 20 wherein the first beam is parallel to and on a first line extending from the center of a circle and the second beam is parallel to and on a second line extending from the center of the same circle.

23. (Previously Presented) The semiconductor structure of claim 13, further comprising a first dielectric layer between the first trench and the first conducting layer, and between the second trench and the first conducting layer.

24. (Previously Presented) The semiconductor structure of claim 13, further comprising a first remaining sacrificial layer between the first portion of the first beam and the

first conducting layer, and between the first portion of the second beam and the first conducting layer.

25. (Currently Amended) An integrated circuit on a semiconductor substrate comprising:

a sensor including:

a trench extending from a first surface into the substrate, the trench having walls,
a first conducting layer positioned over the walls of the trench at selected

locations, and

a beam positioned within the trench, the beam being connected at a first portion thereof to the substrate and being movable at a second portion thereof, the second portion being spaced from the walls by a selected distance; and

a semiconductor circuit on the substrate having a first node coupled to the first conducting layer and a second node coupled to the beam-layer, the semiconductor circuit configured to detect electrical contact between the beam and the trench.

26. (Previously Presented) The integrated circuit of claim 25 wherein the sensor further comprises a first dielectric layer between the trench and the first conducting layer.

27. (Previously Presented) The integrated circuit of claim 25 wherein the sensor further comprises a remaining sacrificial layer between the first portion of the beam and the first conducting layer.

28.-33. (Cancelled)

34. (Previously Presented) A semiconductor structure comprising:

a semiconductor substrate;

a first trench extending in a first direction, the first trench having walls;

a second trench extending in a second direction, perpendicular to the first direction, the second trench having walls;

a first conducting layer positioned over the walls of the first and the second trenches at selected locations;

a first beam positioned within the first trench, the first beam being connected at a first portion thereof to the substrate and being movable at a second portion thereof, the second portion being spaced from the walls of the first trench by a selected distance;

a second beam positioned within the second trench, the second beam being connected at a first portion thereof to the substrate and being movable at a second portion thereof, the second portion being spaced from the walls of the second trench by a selected distance; and

a third beam that is parallel to the surface of the semiconductor substrate having its primary axis of motion perpendicular to the surface of the substrate.

35. (Previously Presented) The semiconductor structure of claim 34 wherein the length of the first beam is the same as the length of the second beam.

36. (Previously Presented) The semiconductor structure of claim 34 wherein the width of the first beam is the same as the width of the second beam.

37. (Previously Presented) The semiconductor structure of claim 34 wherein the width of the first trench is the same as the width of the second trench.

38. (Previously Presented) The semiconductor structure of claim 34 wherein the thickness of the first beam is the same as the thickness of the second beam.

39. (Previously Presented) The semiconductor structure of claim 34 wherein the length of the first beam is the different from the length of the third beam.

40. (Previously Presented) The semiconductor structure of claim 34 wherein the width of the first beam is the different from the width of the third beam.

41. (Previously Presented) The semiconductor structure of claim 34 wherein the thickness of the first beam is the different from the thickness of the third beam.

42. (Previously Presented) The semiconductor structure of claim 34 wherein the third beam is built in a third trench.

43. (Previously Presented) The semiconductor structure of claim 42 wherein the width of the first trench is different from the width of the third trench.

44. (Previously Presented) The semiconductor structure of claim 42 wherein the depth of the first trench is different from the depth of the third trench.

45. (Previously Presented) The semiconductor structure of claim 13 further comprising:

a circuit configured to detect an electrical connection between the first beam and the first conducting layer and between the second beam and the first conducting layer.

46. (Previously Presented) The semiconductor structure of claim 45 wherein the circuit is formed in the semiconductor substrate.

47. (Cancelled)

48.-49. (Cancelled)

50.-52. (Cancelled)

53.-56. (Cancelled)